

Product Name
SOLARFLO AUXIN PANEL MOUNTING

Product Description
AXN-P6T SERIES SOLAR PANEL RAIL MOUNTING SYSTEM
(SOLAR PV MODULE 1646 x 995 FOR SHEET METAL ROOFS)

Manufacturer's Name
AUXIN
Postal Address: PO BOX 3701, SUCCESS, WESTERN AUSTRALIA 6964

Design Criteria

BASIC WIND DESIGN CRITERIA

1. AS/NZS 1170.2: 2011 REGION C	
2. TERRAIN CATEGORY:	2
3. $C_p, n = C_p, e = -1.3$	
4. HEIGHT (H)	NOT GREATER THAN 10m
5. REGIONAL WIND SPEED V_R	69.3 m/s
6. DESIGN WIND PRESSURE	3.75 kPa - ZONE 1 (REFER TO Fig 1.) 5.62 kPa - ZONE 2 (REFER TO Fig 1.)
7. IMPORTANCE LEVEL:	2
8. REGION:	C
9. TOPOGRAPHIC MULTIPLIER	$M_I = 1.0$ (FLAT)
10. ULTIMATE LOAD ON BRACKET	3.40 kN ZONE 1 (REFER TO Fig 1.) 3.48 kN ZONE 2 (REFER TO Fig 1.)

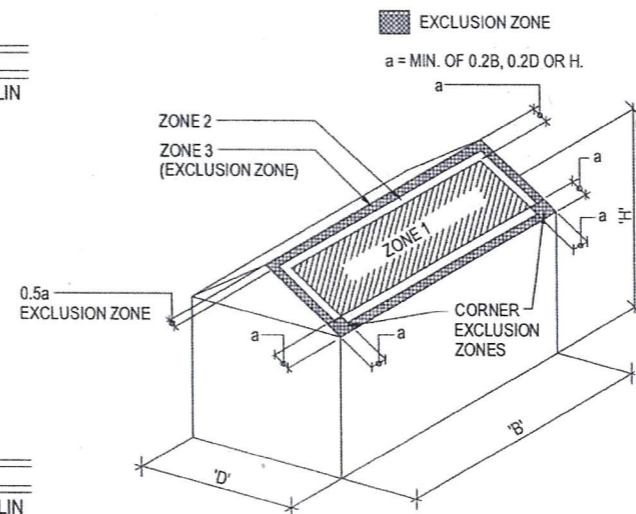


Fig 1: ROOF REGIONS

BATTEN/PURLIN THICKNESS (MIN 0.75mm)	QTY & TYPE OF FASTENER	SPACING 'y' (mm) MAX.	'EQ' (mm) MAX.
TIMBER & STEEL < 1.0mm	4 x BUILDDEX 14g-10TPI TYPE 17 SCREWS	1000	323
STEEL PURLINS - 1.2mm OR THICKER	4 x BUILDDEX TEKS 14g-10TPI SCREWS	1400	246
STEEL PURLINS - 1.5mm OR THICKER	2 x BUILDDEX TEKS 14g-10TPI SCREWS	1400	246

TABLE 2: MOUNTING BRACKET SPACING

ZONE	SPACING 'x' MAX. (mm)
1	1100
2	750
3	EXCLUSION ZONE

NOTE 1:
FIXING TEK SCREWS ARE TO BE 50mm LONG AND CONFORM TO AS3566-2002

NOTE 2:
MOUNTING BRACKETS CANNOT BE FIXED TO TRIMDEK PROFILE ROOFS ON TIMBER PURLIN ROOFS OR STEEL PURLIN ROOFS <1.5mm
ALTERNATIVELY, TWO BRACKETS IMMEDIATELY ADJACENT TO ONE ANOTHER MAY BE USED ON TIMBER PURLIN OR STEEL PURLIN ROOFS <1.5mm TO ACHIEVE A QUANTITY OF FOUR FASTENERS

SHEET 1 OF 2

Notes covering basis of DTC (Relevant test reports etc)
SD REPORT No. 0137-RPT-1003 (ISSUE 2, 28/12/2011)
SD TEST REPORT No. 0137-RPT-0004 (ISSUE 2, 24/12/2011)
AL TEST REPORT No. 20101809M04 (20/01/2011)

****Design Engineers Certification**

Name: MICHAEL VON BERTOUCHE
Registration Number: MIE AUST 437510
Date: 27.2.12
Signature: [Signature]

STRUCTURED DESIGN
**registered as a structural engineer in Australia

****Certifying Engineers Certification**

Name: NEIL WILLIAM CLARKE
NT Registration Number: 18235ES
Date: 28.2.12
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Accepted for Inclusion

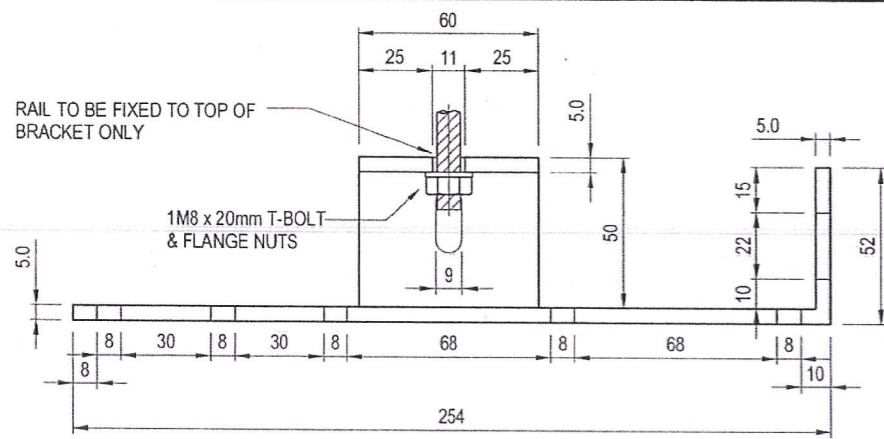
DTCM ref: m/540/1

Chairman's Signature: [Signature]

Chairman's Name: STEVEN J EHRLICH

Date of Approval: 28.2.12 Expiry Date: 28.2.15

New Expiry: 28/2/17
Signature: [Signature]

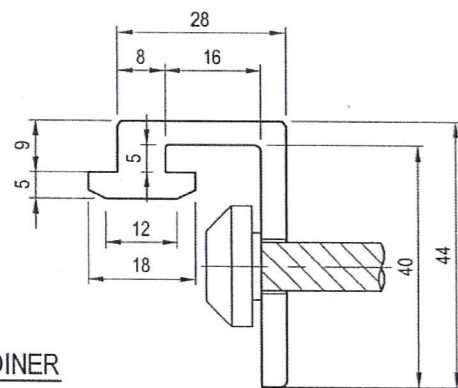


TIN ROOF BRACKET

MATERIAL: G304 STAINLESS STEEL
 - USED TO CONNECT RAIL TO TIN ROOF.
 - PROVIDE AUXIN SOLAR TIN ROOF BRACKET ISOLATION TAPE UNDER BRACKET FOR TIGHT SEAL WITH TIN ROOF AND ENSURE THAT THERE IS NO CONTACT BETWEEN THE BRACKET AND THE ROOFING MATERIAL.

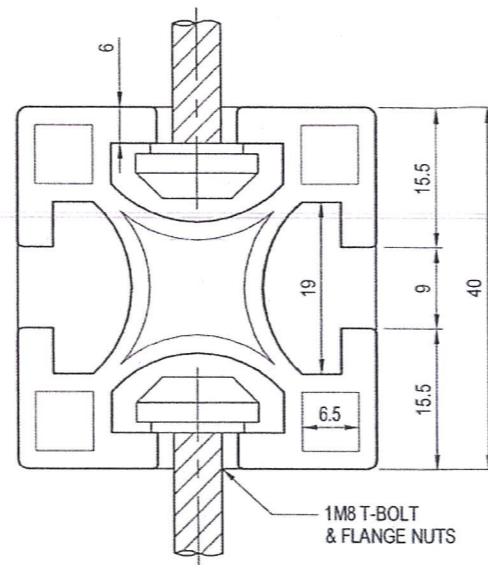
T-BOLT

MATERIAL: STAINLESS STEEL
 - MANUFACTURED TO ISO3506 CLASS 70
 - USED WITH M8 FLANGE NUT WITH CERRATIONS.



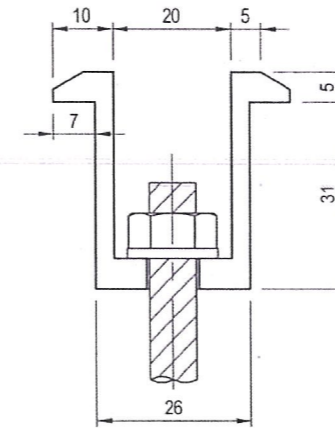
RAIL JOINER

MATERIAL: ALUMINIUM
 - USED TO JOIN TWO RAILS
 BOLT: 2M8 x 20mm T-BOLT & FLANGE NUTS



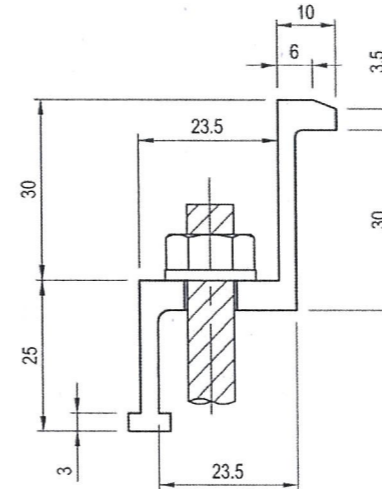
MOUNTING RAIL

MATERIAL: ALUMINIUM
 - USE T-BOLT TO CONNECT TIN ROOF BRACKET TO MOUNTING RAIL
 - SECURE PANEL TO MOUNTING RAIL BY PROVIDING T-BOLT TO THE UPPER CLAMP AND END CLAMP.
 - USE T-BOLT TO CONNECT RAIL JOINER TO MOUNTING RAIL.



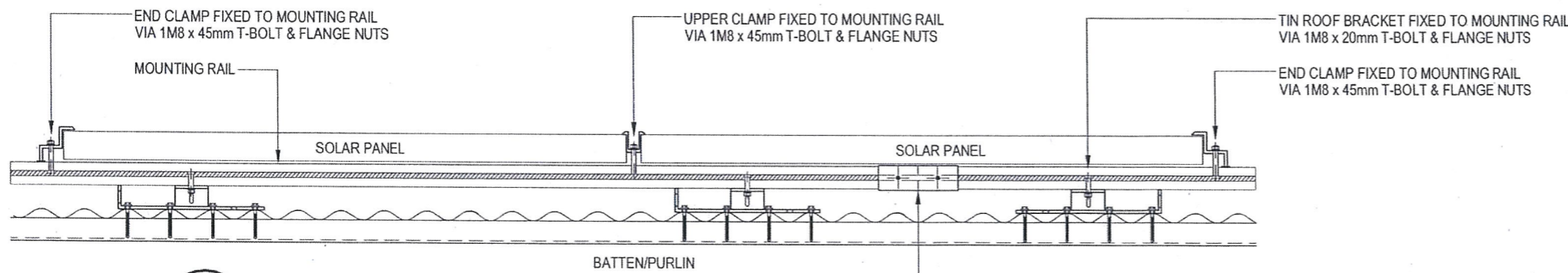
UPPER CLAMP (MID CLAMP)

MATERIAL: ANODIZED ALUMINIUM
 BOLT: 1M8 x 45mm T-BOLT & FLANGE NUTS



END CLAMP

MATERIAL: ANODIZED ALUMINIUM
 BOLT: 1M8 x 45mm T-BOLT & FLANGE NUTS



SECTION 1

SCALE 1:10

SHEET 1

SHEET 2 OF 2

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- Limitations**
- PANELS NOT TO BE LOCATED IN LOCAL PRESSURE ZONES WHERE $k_1 > 1.5$ AS DEFINED IN SECTION 5.4.4 OF AS/NZS 1170.2:2011.
 - PANELS TO BE INSTALLED PARALLEL TO THE ROOF
 - ENDS OF RAILS MAY NOT BE FURTHER THAN 300mm FROM THE FIRST ATTACHMENT BRACKET
 - JOINTS BETWEEN RAIL SEGMENTS MAY NOT BE FURTHER THAN 300mm FROM AN ATTACHMENT BRACKET
 - THE ROOF STRUCTURE SHALL BE VERIFIED TO ENSURE IT CAN SUPPORT THE ADDITIONAL LOADS OF THE PANEL SYSTEM (0.15 kPa PANEL WEIGHT & WIND PRESSURES)
 - UNIT NOT TO BE INSTALLED ON ROOFS THAT ARE NOT DESIGNED FOR CYCLONIC LOADS
 - AUXIN TIN ROOF BRACKET FIXINGS TO MOUNTING RAIL AT MAX CTS AS PER TABLE 2
 - MAXIMUM ROOF PITCH TO BE 30°
 - MOUNTING RAIL TO BE FIXED TO OUTER MOST BATTEN BENEATH PANELS
 - BRACKETS ARE TO BE FIXED THROUGH THE CREST OF THE ROOF SHEETING ONLY

- System Layout**
- ALL BOLTS, WASHER & SCREWS TO BE STAINLESS OR GALV. OR CLASS 4 FINISH UNO.
 - MIN 2 RAILS PER PANEL
- Fixing Detail**
- MIN STEEL THICKNESS FOR BATTENS/PURLIN TO BE 0.75BMT
 - MIN TEK EMBEDMENT LENGTH OF 36mm INTO F8 HARDWOOD OR BETTER
 - THE MOUNTING RAIL MAY ONLY BE ATTACHED TO THE 'TOP' OF THE CENTRE LUG. SIDE ATTACHMENT MAY NOT BE USED

Accepted for Inclusion

DTCM ref: M/540/2

Chairman's Signature: *[Signature]*

Chairman's Name: STEVEN J. FARLICH

Date of Approval: 28.2.12 Expiry Date: 28.2.15

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